

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (cancelled)

Claim 11 (currently amended): A nucleic acid molecule comprising a nucleotide sequence encoding a fluorescent protein ~~which is derived from Green Fluorescent Protein (GFP)~~ or any functional ~~GFP~~ Green Fluorescent Protein (GFP) analogue and has an amino acid sequence which is modified by amino acid substitution compared with the amino acid sequence of wild type *A. victoria* Green Fluorescent Protein having the sequence of SEQ ID NO: 2, said modified fluorescent protein comprising:

- i) an amino acid substitution at position F64;
- ii) ~~a single amino acid substitution at a position selected from the group consisting of positions S65 and~~ an amino acid substitution at position E222; and
- iii) an amino acid substitution at position S175;

wherein said modified GFP has a different excitation spectrum or a different emission spectrum compared with wild type GFP or has a different excitation spectrum and a different emission spectrum compared with wild type GFP.

Claim 12 (cancelled)

Claim 13 (currently amended): The nucleic acid molecule of claim 11 encoding a fluorescent protein having ~~an~~ the amino acid sequence ~~selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 4.~~

Claim 14 (currently amended): A nucleic acid molecule comprising a nucleotide sequence encoding a fusion protein, wherein said fusion protein further comprises a protein of interest fused to a fluorescent protein, ~~which is derived from Green Fluorescent Protein (GFP)~~ or any functional ~~GFP~~ Green Fluorescent Protein (GFP) analogue and has an amino acid sequence which is modified by amino acid substitution compared with the amino acid sequence of wild type *A. victoria* Green Fluorescent Protein having ~~a~~ the sequence of SEQ ID NO: 2, said modified fluorescent protein including:

- i) an amino acid substitution at position F64;
- ii) ~~a single amino acid substitution at a position selected from the group consisting of positions S65 and~~ an amino acid substitution at position E222; and
- iii) an amino acid substitution at position S175;

wherein said modified GFP has a different excitation spectrum or a different emission spectrum compared with wild type GFP or has a different excitation spectrum and a different emission spectrum compared with wild type GFP.

Claim 15 (previously presented): An expression vector comprising suitable expression control sequences operably linked to the nucleic acid molecule of claim 11.

Claim 16 (previously presented): A host cell transformed or transfected with a DNA construct comprising the expression vector of claim 15.

Claim 17 (previously presented): The host cell of claim 16, wherein said host cell is selected from the group consisting of mammalian cells, bacterial cells, yeast cells and insect cells.

Claim 18 (currently amended): A method for preparing a Green Fluorescent Protein (GFP) or a functional GFP analogue ~~according to the present invention said method~~ comprising cultivating the host cell of claim 16 and obtaining therefrom the polypeptide expressed by said nucleotide sequence.

Claims 19-25 (cancelled)

Claim 26 (new): A nucleic acid molecule comprising a nucleotide sequence encoding a fluorescent protein or any functional Green Fluorescent Protein (GFP) analogue and has an amino acid sequence which is modified by amino acid substitution compared with the

amino acid sequence of wild type *A. victoria* Green Fluorescent Protein having the sequence of SEQ ID NO: 2, said modified fluorescent protein consisting of:

- i) an amino acid substitution at position F64;
- ii) an amino acid substitution at position S65; and
- iii) an amino acid substitution at position S175;

wherein said modified GFP has a different excitation spectrum or a different emission spectrum compared with wild type GFP or has a different excitation spectrum and a different emission spectrum compared with wild type GFP.

Claim 27 (new): The nucleic acid molecule of claim 26 encoding a fluorescent protein having the amino acid sequence of SEQ ID NO: 4.

Claim 28 (new): A nucleic acid molecule comprising a nucleotide sequence encoding a fusion protein, wherein said fusion protein further comprises a protein of interest fused to a fluorescent protein or any functional Green Fluorescent Protein (GFP) analogue and has an amino acid sequence which is modified by amino acid substitution compared with the amino acid sequence of wild type *A. victoria* Green Fluorescent Protein having a sequence of SEQ ID NO: 2, said modified fluorescent protein including:

- i) an amino acid substitution at position F64;
- ii) an amino acid substitution at position S65; and
- iii) an amino acid substitution at position S175;

wherein said modified GFP has a different excitation spectrum or a different emission spectrum compared with wild type GFP or has a different excitation spectrum and a different emission spectrum compared with wild type GFP.

Claim 29 (new): An expression vector comprising suitable expression control sequences operably linked to the nucleic acid molecule of claim 26.

Claim 30 (new): A host cell transformed or transfected with a DNA construct comprising the expression vector of claim 29.

Claim 31 (new): The host cell of claim 30, wherein said host cell is selected from the group consisting of mammalian cells, bacterial cells, yeast cells and insect cells.

Claim 32 (new): A method for preparing a Green Fluorescent Protein (GFP) or a functional GFP analogue comprising cultivating the host cell of claim 30 and obtaining therefrom the polypeptide expressed by said nucleotide sequence.

Claim 33 (new): The nucleic acid molecule of claim 11 comprising a nucleotide sequence encoding a fluorescent protein or any functional Green Fluorescent Protein (GFP) analogue and has an amino acid sequence which is modified by amino acid substitution compared with the amino acid sequence of wild type *A. victoria* Green Fluorescent

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Protein, wherein the amino acid Ser at position 65 has been substituted by an amino acid selected from the group consisting of Gly, Ala, Leu, Cys, Val, Ile and Thr.